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LEARNING WITH SMARTPHONES: STUDENTS' LIVED EXPERIENCE OF USING SMARTPHONES

ABSTRACT

The exponential growth of mobile technologies has created a diversity of additional affordances and new channels of communicating and representing information. With its wide-ranging applications and multiple features, the smartphone is propelling a new way of learning “on the fly”. Mobile learning is more than simply learning with certain types of digital technologies: it is a “philosophical approach to the possibility of learning anytime anywhere - knowing that you can find information when you need it” (Woodill, 2011, p.184). In this study, an interpretive research design is used to understand how young people in Malaysia use their smartphones for learning and to uncover the meaning and structures of their lived experience. Applying the principles and practices of hermeneutic phenomenology, this study aims to gain access to a phenomenon that is often subconscious and to interpret the participants’ learning experiences. Twelve youths participated in three rounds of semi-structured interviews over a period of four months. Experiential diary accounts and photographs were also collected. This paper presents the preliminary findings of the study. The findings may yield new understanding that may prove useful to Malaysia and other countries as well especially in its implications for formal and informal learning.

KEYWORDS

Formal and Informal settings, Social-cultural contexts, Smartphone learning, phenomenology

1. INTRODUCTION

Smartphones are the more expensive versions of mobile phones and generally have multiple functions, serving as video recorders, camera phones and portable media players with high-resolution touchscreens. They run on mobile operating systems such as the Apple iOS, Google Android, and Nokia Symbian that can log on and accurately present standard web pages as opposed to only mobile-optimized sites. With its multiple applications and diverse features, the smartphone is propelling a new way of learning “on the fly”. The nature of the present mobile learning environment however, is fragmented with many definitions of mobile learning. Generally, most definitions agree upon the importance of access, context and conversation (Sharples et al., 2007, Belshaw, 2010, Kukulska-Hulme, 2010). More importantly, mobile learning is more than simply learning with certain types of digital technologies: it is a “philosophical approach to the possibility of learning anytime anywhere - knowing that you can find information when you need it” (Woodill, 2011, p.184).

My interest in this subject came from working as a lecturer and educational administrator in Singapore and Malaysia. With the proliferation of mobile technologies, the smartphone appears to have the potential to change the teaching and learning experience. Many young people today do not recognize that they are learning with their smartphones; rather their learning appears intertwined with their daily activities. My aim is to discover from the learners’ perspectives how they use mobile technologies to learn in their daily lives in relation to their historical and cultural contexts, and to uncover the meaning of this learning. A study of the lived learning experiences of the students in Malaysia with smartphones would be able to add to new knowledge as there appears to be a paucity of interpretive research in this area; the findings and conclusions could yield new understanding that may prove useful especially in its implications for formal and informal learning.

2. AIM

What are the meaning and structure of the lived experience of learning with smartphones?

3. RESEARCH QUESTIONS

- What are the meaning and structure of learning for the student participants?
- What is this experience of learning with smartphones like?
- How do the student participants perceive the nature of their learning with smartphones?
- Are they learning in different ways as compared with previous generations?

4. RESEARCH PHENOMENON

4.1 MOBILE LEARNING AND THEORIES OF LEARNING

The nature of the current mobile learning environment is divided with many definitions of mobile learning (m-learning) as the mobile learning community includes theorists and researchers with philosophical associations ranging from empiricists to post-structuralists. Hence, there is a diversity of opinions with respect to m-learning and with each theorist drawing on varying theories of learning, the concept of mobile learning is a contestable topic. Some theorists see m-learning as an extension of e-learning. Laurillard (1999, 2007) proposes using the Conversational Framework to test how using mobile devices contribute to the learning process. This perspective is an example of how conventional e-learning theory is utilized to explain m-learning. There is however, the problem of the transferability of this theory as m-learning may be manifestly different from e-learning particularly in the informal settings.

Naismith et al. (2004) used an activity-centred perspective to review mobile learning projects against the existing learning theories: behaviourism, constructivism, situated learning and collaborative learning. Cochrane (2008, p.1) notes that the use of mobile technologies for learning is underpinned by “newer learning theories that find their roots in social constructivism such as: authentic learning, communities of practice, distributed intelligence, distributed cognition, connectivism, and activity theory”.

Traxler (2010, p. 14) argues that ‘mobile’ in m-learning is not just a “qualifying adjective”, instead it signals a new approach to learning: “just-in-time, just enough, and just-for-me” with a focus on the experiences of learners and with it, “the emphasis on ownership, informality, mobility, and context”. Mobile technologies are arguably changing the relationships between public and private spaces and how people view these relationships penetrated by “mobile virtual spaces” (Traxler, 2009, p. 72). Learning can take place not only in established public or private spaces like schools, libraries, homes but also on the train, bus or in the toilet. With information readily available through the Internet 24/7, learners can use their mobile devices to access Wikipedia, news, music and different types of learning materials. This suggests a shift in ownership of knowledge from educational institutions and formal learning to non-formal and informal learning.

More importantly, Traxler argues that there may be a need to examine previous concepts of how knowledge and learning are structured when considering how content in m-learning has to be delivered in bite size chunks. His prediction is that individual learners may even develop “their own ontologies of learning on the fly as they navigate through a personalized learning journey” (Traxler, 2010, p.15).

4.2 APPROACHES TO LEARNING

The approaches that young people take in their learning are an important dimension in learning with smartphones. Marton and Säljö (1976a, b; 2005) suggest that when presented with similar learning

opportunities, learners approach their learning in different ways. Their research led to the well-known conceptions of deep and surface learning which describe the approaches learners used to adapt to their learning environments. A deep approach to learning refers to the learner's attempt to understand and construct meaning from a learning event. In this approach, the learner meaningfully engages with the task with the aim of achieving a deep understanding and putting the learning in its context (Entwistle and Ramsden, 1983). A surface approach means that the learner does not see beyond the text to its meaning and sense. The learner attempts to memorise the text in order to fulfil study or examination requirements with superficial understanding and engagement. Deep and surface approaches to learning are not fixed characteristics of learners: learners may have a preference for one or the other but their choice depends very much on the task at hand or the perceived demand of the learning event. Newble et al. (1990) suggest that learners' approach to learning can be attributed to their preferred learning styles and their learning environments.

To investigate how learners conceptualized their learning, Säljö (1979) asked university students this fundamental question: 'What do you actually mean by learning?' He discovered five conceptions of learning (Figure 1). Marton et al. (1993) added a sixth conception of learning: learning brings a change to the learners themselves (Figure 1).

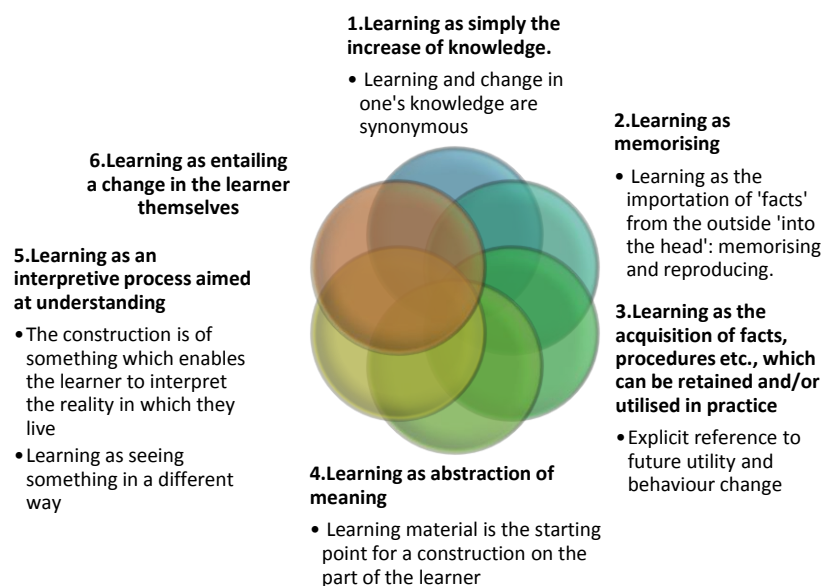


Figure 1. Conceptions of Learning
Source: Greasley and Ashworth (2007, p.822-823)

The three conceptions of learning: learning as increasing of knowledge; learning as memorizing; learning as applying facts and knowledge are considered by Marton et al. (1993) to be primary reproduction of information and engender surface approaches to learning. The other three conceptions: learning as involving change in a person, learning as understanding and learning as perceiving something in a new light are believed to represent deep approaches to learning. Deep and surface learning require different conceptions of learning and distinct mental orientations to the learning processes depending on the learner's purpose.

4.3 LEARNING WITH SMARTPHONES

Learning with smartphones or m-learning in this study is presented as a contextualised, participation focused activity with an emphasis on the experiences of learners and its attendant features of informality, mobility and ownership. In this research, participants have generally agreed with Traxler (2010, p.14) that their m-learning is "just-in-time, just enough, and just-for-me".

5. RESEARCH APPROACH AND METHODOLOGY

To investigate the lived experience of learning with smartphones, a hermeneutic phenomenological approach was utilised (Heidegger, 1962; Gadamer, 1998). Phenomenology originated from Husserl who argued that the study of human science was not to explain laws or discover cause and effect as in the natural sciences; rather it was to understand the 'life world' in its pre-reflective condition and to revisit and re-examine those taken for granted experiences in order to expose new and forgotten meanings (Husserl, 1970). Phenomenology advocates do not all agree with Husserl's approach and the movement is relatively amorphous (Giorgi, 2005). Hermeneutic phenomenology is a variant and it seeks to interpret individuals' interactions with the world with an emphasis on the individuals' historicity or background (Heidegger, 1962). By means of a hermeneutic circle, this interpretive process moves from components of experience to the whole experience and back again and is repeated to enhance the depth of understanding and engagement with texts (Lavery, 2003).

The main research method in this study was semi-structured in-depth interviews with 12 students. 3 interviews with each individual were conducted. The sampling criteria were based on age (16-19 years), race, educational background, location and gender. Purposive sampling strategies used include Snowball sampling and Deviant Case sampling to provide rich, thick descriptions from diverse viewpoints. Experiential diaries and artefacts (eg. screen capture of the mobile internet) were collected and the meanings and interpretations of these reflections discussed during the interviews. Each interview was recorded and transcribed verbatim. Permission for the recording was sought from the participants and transcripts and interpretations would be made available to them to comment. This ensures accuracy of data analysis and interpretation to achieve better methodological rigour. In addition, field notes (or what Miles and Huberman, (1984, p. 69) describe as 'memoing') were taken after each interview.

6. FINDINGS

As this research study is still in progress, the findings are preliminary in nature. According to the participants, their use of smartphones are primarily for communication and social networking using mobile applications such as *Facebook*, *Twitter*, *whatapp*, *Line* and *viber*. Entertainment is next, with a focus on playing games and watching youtube videos. Learning takes the last position and the participants perceive their learning as searching for information in class and outside of class, writing on blogs or websites and reading. They have very limited awareness of their learning or the learning potential of their smartphones as their perception was that these were daily activities associated with their smartphones. The findings reveal that there were other aspects of learning occurring: peer-based learning from communities of practice, problem-based learning, collaborative learning, reflective learning, music learning and language learning. In addition, they were sub-consciously learning even while they were watching youtube videos, playing games and social networking.

In their approaches to learning, they were utilizing both surface and deep approaches and with the easy access to information on the Internet, their preference was not for memorization of knowledge or facts. Their perceptions of mobile learning was that it was 'spontaneous', 'easy', 'convenient', 'simple', and 'learning anytime, anywhere'. They term it as 'satisfaction learning' or learning by 'trial and error'. Some participants believed that in searching for information and reading for greater understanding, they began to see changes in themselves and were able to perceive topics and the world in new ways.

7. CONCLUSION

Students in this study are learning in new ways using their smartphones to navigate their personal learning journeys, in both formal and informal learning settings. As this research is still in progress, more final conclusions and implications would be shared during the conference in March 2013.

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